

ATTACHMENT #5

**UTILITY DEMAND ESTIMATES FOR LEXINGTON
TECHNOLOGY PARK**

PREPARED BY SYMMES MAINI & MCKEE ASSOCIATES

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LEXINGTON TECHNOLOGY PARK – UTILITY DEMANDS**Utility Demand Estimates**

Building	Water Demand (gpd)	Wastewater Discharge (gpd)	Electrical - Connected Load (KVA)	Electrical - Demand Load (KVA)	Gas - Connected Load (cfh)
125 Spring Street	13,550 gpd	13,550 gpd	1,350 KVA	800 KVA	5,500 cfh
100 Patriot Way	28,620 gpd	28,620 gpd	5,000 KVA	3,000 KVA	65,000 cfh
200 Patriot Way	21,200 gpd	21,200 gpd	4,000 KVA	2,400 KVA	50,000 cfh
300 Patriot Way	26,850 gpd	26,850 gpd	3,500 KVA	2,100 KVA	36,650 cfh 3,103 cfh
400 Patriot Way	209,320 gpd	119,695 gpd	6,234 KVA	4,123 KVA	57,152 cfh
500 Patriot Way	7,500 gpd	7,500 gpd	2,500 KVA	1,500 KVA	20,000 cfh
600 Patriot Way	13,460 gpd	13,460 gpd	2,500 KVA	1,500 KVA	32,000 cfh
Patriot Way Total	320,500 gpd	230,875 gpd	23,734 KVA	14,623 KVA	263,905 cfh

Water Supply

The existing water supply for the Lexington Technology Park is from the Massachusetts Water Resource Authority (MWRA) system. The site is served by a 12-inch main in Spring Street. The existing service main within Patriot Way is also 12-inch, and will remain in place. New fire service and domestic water connections will be to the on-site 12-inch service main in Patriot Way. New hydrants are located on a partial loop to the south of the Buildings at 300 and

400 Patriot Way, on an 8" water pipe. The construction of 200 Patriot Way will complete this southern loop back to Spring Street.

125 Spring Street is serviced directly by an 8-inch service tapped from the main in Spring Street.

Wastewater

The site is served by a 10-inch gravity line that flows from southeast to northwest across the site, starting at Building 125, running south of 300-500 Patriot Way and extending to Weston Street at the northwesterly property line. From there the diameter increases from 14-inch to 18-inch, and the line continues by gravity to a pump station at Valley Road. From there the flow is pumped to the Lexington Interceptor which continues easterly through the MWRA system ultimately to the Deer Island Waste Water Treatment Plant.

The existing system has adequate hydraulic capacity for the anticipated demands. Under proposed conditions the existing 10-inch gravity sewer will be retained with new service connections from future buildings. An inspection of the 10-inch line was conducted as part of the approval process with the Town of Lexington for 400 Patriot Way, which indicated the pipes were in good condition.

Gas

The site is currently served by two separate services. There is a 3-inch medium pressure main in Patriot Way, which transitions to a 4-inch main from B300 to B500. There is a new 6" high pressure service located south of 200 to 400 Patriot Way, and ends with its connection to 400 Patriot Way.

100 and 200 Patriot Way will be connected to the new 6" main. 600 Patriot Way will be connected to the service in Patriot Way.

125 Spring Street is served separately off of Spring Street.